

Remarks

These Remarks are in reply to the Office Action mailed December 27, 2007.

I. Summary of Examiner's Rejections

Claims 1-10 were pending in the Application prior to Office Action mailed December 27, 2007.

The Office Action rejected claims 1-4 under 35 U.S.C. § 103(a) as being unpatentable over Lampson et al. (5,335,343) in view of Nageswaran (5,991,792).

The Office Action rejected claims 5-10 under 35 U.S.C. § 103(a) as being unpatentable over Lampson et al. (5,335,343) in view of Nageswaran (5,991,792) and further in view of Haritsa (The PROMPT Real Time Commit Protocol, Feb. 2002).

II. Summary of Applicants' Response

Reconsideration of the rejections is requested.

III. Differences Between the Claimed Invention and the References

None of the references explain how to implement multi-threading in a transaction processing environment that uses two phase commit.

While discussing Claim 1, the Office Action asserted that one of ordinary skill in the art would appreciate that one of Lampson's subordinates could be considered a thread. However, Lampson's invention, "Distributed Transaction Processing Using Two-Phase Commit Protocol With Presumed Commit Without Log Force," teaches against the Office Action's assertion. Lampson teaches that the subordinates are "processes executing on separate ones of the nodes 11-15 of

Fig.1.....” Lampson’s subordinates are not multi-threaded.

Nageswaran discusses multi-threading, but does not mention two-phase commit transaction processing.

The PROMPT Real-Time Commit Protocol reference discusses transaction processing, but does not mention multi-threading. Page 162 states “In this model, there is one process, called the master, which is executed at the site where the transaction is submitted, and a set of other processes, called cohorts, which execute on behalf of the transaction at the various sites which are accessed by the transaction.” The cohorts are not multi-threaded.

IV. Response to Rejections

Claim 6

Claim 6 states:

A method for processing N two-phase commit protocol operations, comprising:

processing N two-phase commit protocol operations in a first server thread, wherein the processing for each of N-1 of the two-phase commit protocol operation includes:

dispatching the two-phase commit protocol operation to a second server thread if a second server thread is determined to be available; and

processing the two-phase commit protocol operation in the primary thread if no second server thread is determined to be available; and

processing the remaining two-phase commit protocol operation in the first server thread.

The Office Action alleged that Claim 6 was obvious in view of Lampson et al. in view of Nageswaran and further in view of Haritsa. Neither Lampson nor Haritsa teach multi-threading,

instead Lampson's subordinates are located on separate nodes and Haritsa's cohorts are located at other sites. Nageswaran does not teach transaction processing or two-phase commit. There is no discussion in the references of how to dispatch two-phase commit operations in a multi-threaded environment. The combination of the references would not enable a person of skill in the art to practice the invention of claim 6. Claim 6 is not obvious.

Applicants respectfully submit that the embodiment as defined in Independent Claim 6 is not obvious in view of Lampson et al. in view of Nageswaran and further in view of Haritsa. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection to claim 6 be withdrawn.

Claims 1-5 and 7-10

Dependent Claims 7-10 depend from Claim 6. For at least the reasons discussed above with regard to Claim 6, dependent Claims 7-10 are also patentable. Dependent claims 7-10 add their own features which render them patentable in their own right. Independent Claim 1 and dependent Claims 2-5 are also patentable for the reasons above. Independent Claim 1 and dependent claims 2-5 add their own features which render them patentable in their own right.

V. Conclusion

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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